

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 04-132214

(43)Date of publication of application : 06.05.1992

(51)Int.Cl.

H01L 21/205

(21)Application number : 02-251923

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(22)Date of filing : 25.09.1990

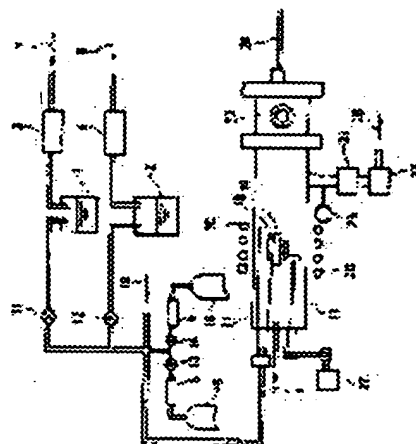
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## (54) MANUFACTURE OF COMPOUND SEMICONDUCTOR THIN FILM

### (57)Abstract:

**PURPOSE:** To easily execute the ALE growth operation of an InP-based compound semiconductor thin film and a mixed crystal-based compound semiconductor thin film and to satisfactorily control the composition of a mixed crystal by a method wherein respectively specific compounds are used as a raw-material compound containing a group Vb element and as a raw-material compound containing a group IIIb indium element.

**CONSTITUTION:** A raw-material compound which contains a group IIIb element and a group Vb element in the periodic table as elements of constituent components of a compound semiconductor thin film is introduced onto a substrate 18 placed in a vapor reaction container 17; and a III-V compound semiconductor thin film is manufactured by a chemical vapor growth method. At least one kind of compound selected from hydrates of said group Vb element is used as the raw-material compound containing the Vb element. At least one kind of compound selected from indium compounds, containing chlorine, expressed by  $(R1)_2InCl$ ,  $R2InCl_2$  and  $InCl$  (where R1 represents a 2C or more alkyl group or alkenyl group and R2 represents a 5C or less alkyl group or alkenyl group) is used as the raw-material compound containing group III b indium.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]